

**PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	)
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Umair A. Khan et al.	) Art Unit: 3621
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Application No. 09/942,047	) Examiner: Murdough, Joshua A.
	)
Filed: 08/28/2001	) Atty. Docket No.:
	) NVIDP371/P002178
For: SYSTEM, METHOD AND COMPUTER	)
PROGRAM PRODUCT FOR THE	) Date: 05/05/2010
RECORDING AND PLAYBACK OF	)
TRANSACTION MACROS	)
_____	)

**PROPOSED AMENDMENT**

1. (Currently Amended) A method for carrying out a computer-implemented transaction, comprising:
  - storing in memory a transaction pattern detailing a transaction associated with a single user; and
  - executing the transaction pattern to carry out another transaction;
  - wherein the transaction pattern includes a record of: information submitted by the single user, user actions taken by the single user, system actions taken by a system in response to the information and the user actions in order to generate results, and the results that are sent to the single user;
  - wherein the storage of the transaction pattern includes storage of records of a navigation of the single user during the transaction;
  - wherein the transaction pattern further includes information submitted by the single user, in each form and in each step of a login and account access process;
  - wherein the transaction pattern further includes a record of the actions taken by the system which enable access of the single user to data, and actions enabled by the data to retrieve content;

wherein the execution of the transaction pattern includes recognizing a state of a remote application in its interaction with the single user, the state representing at least one of an action to be performed by the remote application and retrieved content.

2. (Cancelled)
3. (Cancelled)
4. (Previously Presented) The method as recited in claim 1, wherein the storage of the transaction pattern includes the storage of records relating to an interface presented to the single user.
5. (Previously Presented) The method as recited in claim 1, wherein the storage of the transaction pattern includes the storage of records relating to the submission of information by the single user.
6. (Original) The method as recited in claim 1, wherein the storage of the transaction pattern includes the storage of parameters required to complete the transaction.
7. (Canceled)
8. (Previously Presented) The method as recited in claim 1, wherein the storage of the transaction pattern includes the storage of information returned to the single user by the system.
9. (Previously Presented) The method as recited in claim 1, wherein the storage of the transaction pattern includes the storage of information selected by the single user.
10. (Previously Presented) The method as recited in claim 1, wherein the execution of the transaction pattern includes retrieval of the transaction pattern by at least one of an automated agent and a programmable agent.

11. (Previously Presented) The method as recited in claim 1, wherein the execution of the transaction pattern includes submission of required parameters during the other transaction.

12. (Previously Presented) The method as recited in claim 1, wherein the execution of the transaction pattern involves automatic navigation during the other transaction.

13. (Previously Presented) The method as recited in claim 1, wherein the execution of the transaction pattern includes retrieval of the content.

14. (Previously Presented) The method as recited in claim 1, wherein the execution of the transaction pattern includes relaying the content to the single user.

15. (Cancelled)

16. (Currently Amended) A computer program product, embodied on a computer readable medium and capable of execution on a computer, for carrying out a computer-implemented transaction, comprising:

computer code for storing in memory a transaction pattern detailing a transaction associated with a single user; and

computer code for executing the transaction pattern to carry out another transaction;

wherein the transaction pattern includes a record of: information submitted by the single user, user actions taken by the single user, system actions taken by a system in response to the information and the user actions in order to generate results, and the results that are sent to the single user;

wherein the storage of the transaction pattern includes storage of records of a navigation of the single user during the transaction;

wherein the transaction pattern further includes information submitted by the single user, in each form and in each step of a login and account access process;

wherein the transaction pattern further includes a record of the actions taken by the system which enable access of the single user to data, and actions enabled by the data to retrieve content;

wherein the computer code is operable such that the execution of the transaction pattern includes recognizing a state of a remote application in its interaction with the single user, the state representing at least one of an action to be performed by the remote application and retrieved content.

17. (Cancelled)

18. (Cancelled)

19. (Previously Presented) The computer program product as recited in claim 16, wherein the storage of the transaction pattern includes the storage of records relating to an interface presented to the single user.

20. (Previously Presented) The computer program product as recited in claim 16, wherein the storage of the transaction pattern includes the storage of records relating to the submission of information by the single user.

21. (Original) The computer program product as recited in claim 16, wherein the storage of the transaction pattern includes the storage of parameters required to complete the transaction.

22. (Previously Presented) The computer program product as recited in claim 16, wherein the storage of the transaction pattern includes the storage of records relating to the navigation of the single user during the transaction.

23. (Previously Presented) The computer program product as recited in claim 16, wherein the storage of the transaction pattern includes the storage of information returned to the single user by the system.

24. (Previously Presented) The computer program product as recited in claim 16, wherein the storage of the transaction pattern includes the storage of information selected by the single user.

25. (Previously Presented) The computer program product as recited in claim 16, wherein the execution of the transaction pattern includes retrieval of the transaction pattern by at least one of an automated agent and a programmable agent.

26. (Previously Presented) The computer program product as recited in claim 16, wherein the execution of the transaction pattern includes submission of required parameters during the other transaction.

27. (Previously Presented) The computer program product as recited in claim 16, wherein the execution of the transaction pattern involves automatic navigation during the other transaction.

28. (Previously Presented) The computer program product as recited in claim 16, wherein the execution of the transaction pattern includes retrieval of the content.

29. (Previously Presented) The computer program product as recited in claim 16, wherein the execution of the transaction pattern includes relaying the content to the single user.

30. (Cancelled)

31. (Currently Amended) A system for carrying out a computer-implemented transaction, comprising:

hardware logic for storing in memory a transaction pattern detailing a transaction associated with a single user; and

hardware logic for executing the transaction pattern to carry out another transaction;

wherein the transaction pattern includes a record of: information submitted by the single user, user actions taken by the single user, system actions taken by a system in response to the information and the user actions in order to generate results, and the results that are sent to the single user;

wherein the storage of the transaction pattern includes storage of records of a navigation of the single user during the transaction;

wherein the transaction pattern further includes information submitted by the single user, in each form and in each step of a login and account access process;

wherein the transaction pattern further includes a record of the actions taken by the system which enable access of the single user to data, and actions enabled by the data to retrieve content;

wherein the hardware logic is operable such that the execution of the transaction pattern includes recognizing a state of a remote application in its interaction with the single user, the state representing at least one of an action to be performed by the remote application and retrieved content.

32. (Previously Presented) The method as recited in claim 15, wherein the remote application is an electronic commerce application.

33. (Currently Amended) A method for carrying out a computer-implemented transaction, comprising:

recording information submitted by a single user as part of a transaction associated with the single user;

recording user actions taken by the single user as part of the transaction;

recording system actions taken by a system in response to the information and the user actions in order to generate results as part of the transaction;

recording the results that are sent to the single user as part of the transaction;

generating a transaction pattern based on the recorded information;

storing the transaction pattern in memory; and

executing the transaction pattern to automatically carry out another transaction upon receiving a user request for the transaction;

wherein the storage of the transaction pattern includes storage of records of a navigation of the single user during the transaction;

wherein the transaction pattern includes information submitted by the single user, in each form and in each step of a login and account access process;

wherein the transaction pattern further includes a record of actions taken by the system which enable access of the single user to data, and actions enabled by the data to retrieve content;

wherein the execution of the transaction pattern includes recognizing a state of a remote application in its interaction with the single user, the state representing at least one of an action to be performed by the remote application and retrieved content.

34. (Cancelled)

35. (Previously Presented) The method as recited in claim 33, wherein the storage of the transaction pattern includes the storage of information returned to the single user by the system.

36. (Previously Presented) The method as recited in claim 33, wherein the storage of the transaction pattern includes the storage of information selected by the single user.

37. (Previously Presented) The method as recited in claim 33, wherein the execution of the transaction pattern includes retrieval of the transaction pattern by at least one of an automated agent and a programmable agent.

38. (Previously Presented) The method as recited in claim 33, wherein the execution of the transaction pattern involves automatic navigation during the other transaction.

39. (Previously Presented) The method as recited in claim 33, wherein the execution of the transaction pattern includes relaying the content to the single user.

40. (Cancelled)

41. (Currently Amended) A method for carrying out a computer-implemented electronic commerce (e-commerce) transaction, comprising:

storing in memory a transaction pattern detailing a transaction associated with a single user, wherein the transaction pattern includes a record of:

creation of and actions associated with forms presented in a web-interface with which the single user submits information;

information submitted by the single user, in forms presented in an e-commerce flow;

an internal process whereby the submitted information is sent to servers and databases of an e-commerce site;

navigation of the single user within the e-commerce process;

system actions taken by a system in response to the information and the creation and actions in order to generate results; and

the results returned by the e-commerce site once the submitted information has been processed; and

executing the transaction pattern to carry out another transaction;

wherein the transaction pattern further includes information submitted by the single user, in each form and in each step of a login and account access process;

wherein the transaction pattern further includes a record of actions taken by the system which enable access of the single user to data, and actions enabled by the data to retrieve content;

wherein the execution of the transaction pattern includes recognizing a state of a remote application in its interaction with the single user, the state representing at least one of an action to be performed by the remote application and retrieved content.

42. (Currently Amended) A method for carrying out a computer-implemented transaction, comprising:



- recording information submitted by a single user as part of a transaction associated with the single user;
- recording user actions taken by the single user as part of the transaction;
- recording system actions taken by a system in response to the information and the user actions in order to generate results as part of the transaction;
- recording the results that are sent to the single user as part of the transaction;
- recording actions taken by the system which enable the single user to access data;
- recording actions enabled by the data to retrieve content;
- generating a transaction pattern based on the recorded information;
- storing the transaction pattern in memory, including:
  - storing records relating to an interface presented to the single user;
  - storing records relating to the submission of information by the single user;
  - storing parameters required to complete the transaction;
  - storing records of a navigation of the single user during the transaction;
  - storing records relating to the navigation of the single user during the transaction;
  - storing information returned to the single user by the system;
  - storing information selected by the single user;
- executing the transaction pattern to automatically carry out another transaction upon receiving the single user request for the transaction, including:
  - retrieving the transaction pattern using at least one of an automated agent and a programmable agent;
  - recognizing a state of a remote application in its interaction with the single user, the state representing at least one of an action to be performed by the remote application and retrieved content;
  - submitting required parameters during the other transaction;
  - performing automatic navigation during the other transaction;
  - retrieving the content; and
  - relaying the content to the single user;

wherein the transaction pattern further includes information submitted by the single user, in each form and in each step of a login and account access process;

wherein the transaction pattern further includes the record of actions taken by the system which enable access of the single user to the data, and the actions enabled by the data to retrieve the content.

43. (Cancelled)

44. (Previously Presented) The method as recited in claim 1, wherein the transaction pattern further includes an internal process, whereby submitted information is sent to servers and databases of a portfolio account site of the single user.

45. (Previously Presented) The method as recited in claim 1, wherein the information submitted by the single user is submitted via an e-commerce form, the information including a name of the single user, credit card information associated with the single user, and a shipping address of the single user.

46. (Currently Amended) The method as recited in claim 1, wherein the state of the remote application is recognized based on content and probability of a web page represented as the state, ~~the state including a state of the remote application's interaction by the single user,~~ and includes a dedicated connector used to create state definitions and to operate on states.